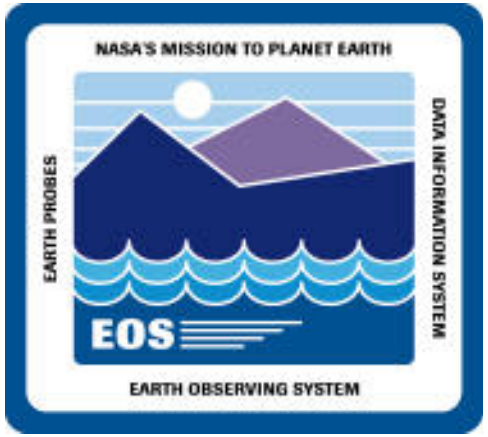

HDF-EOS Development: Version 1 and Beyond

Larry Klein

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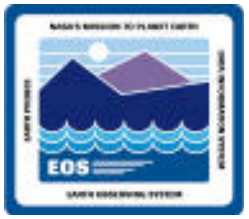
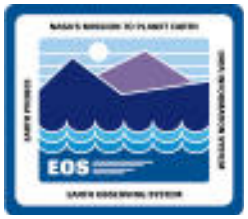
19 April 1996

HDF-EOS Version 2 Development



- **Currently, HDF-EOS structures are made by library calls.**
- **A simpler method will be to create a configuration file, which contains information, which specifies the structure. This is called an HDF-EOS Configuration Record (HCR). HCRs will be based on Object Description Language (ODL). HDF-EOS will use this 'structural metadata' to create a skeletal structure. No breakage of the HDF-EOS interface is implied.**
- **Definition of HCRs, HCR tools and utilities, ODL metadata tools will be implemented by NCSA.**
- **NCSA Schedule**
  - Parse HCR and create HDF-EOS file: prototype, 7/96; final, 9/96.
  - Create HCR from HDF-EOS file: prototype, 1/97; final, 5/97.
  - ODL metadata tools: prototype, 5/96, final, 9/96.

HDF-EOS Version 2 Development



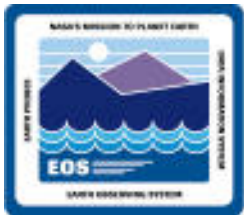
- **LIS requires two-way pointers for their structure. An initial capability was incorporated in V.1; V.2 modifications pending.**

- **MOPITT requires multi-dimensional arrays for point implementation. V.1 allows 1-d only. V.2 modifications pending.**

- **MODIS needs geolocation data in an external file. V.1 allows user input of geolocation data arrays if user writes data as a Swath - V.2 modifications pending.**

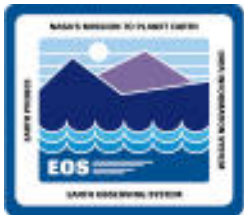
- **V.4.0 of HDF includes PABLO instrumentation for timing analysis. ITs can use this for code efficiency checks.**

Future HDF Development



- **'Big HDF' is next major NCSA research project based on HDF (cir. 1998).**
- **Big HDF will:**
  - Break 2 GByte limit on file size.
  - Allow arbitrary (architecture independent) word length;
  - Have a single data model, combining scalars, vectors, tables;
  - Have a pointer data type - point to external elements, point to data bases (e.g. allow sort services, tiling)
- **HDF-EOS and EOS project experience will influence development.**
- **If there is a strong EOS requirement, prototypes of Big HDF functionality could be rushed to market.**

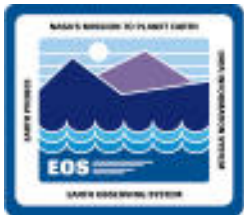
Recent / Upcoming Events



Version 1 HDF-EOS Library will support Instrument Team software development and Release B data-type services (all dates are in 1996)

- **Feb 28:** **DMWG meeting to discuss API and design specification**
- **Feb-March:** **Technical meetings/telecons with instrument teams**
- **March 29:** **Closure on API and Version 1 design specification**
- **April 19:** **Release B CDR Design Walk-through**
- **April 30:** **Delivery of final API, Users Guide (incl. calling sequences, test cases and examples), beta version of Library on server.**
- **May 24:** **Deliver Version 1 to Release A for Integration and Test.**
- **May-June:** **Vendor and DAAC Workshops**
- **June 21:** **Delivery of HDF-EOS Library, Version 1**
- **Dec:** **Delivery of HDF-EOS Library, Version 2**
- **Dec:** **Begin population of Release A with test data sets (V0)**

HDF-EOS Papers and Prototypes



- **Draft HDF-EOS Primer for Version 1 EOSDIS, January 1995**
- **The HDF-EOS Swath Concept, June 1995**
- **The HDF-EOS Grid Concept, February 1996**
- **The HDF-EOS Point Concept, February 1996**
- **Preliminary EOSDIS Browse Package Specification, January 1996**
- **Thoughts on HDF-EOS Metadata, October 1995**